

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) An optical component for reflecting radiation, comprising:
a prism of a material transparent at the wavelength of the radiation to be reflected, said prism having first, second, and third plane faces; and
wherein said first and second faces are oriented perpendicular to each other and said third face is inclined at an angle α to said first face and at an angle ω to said second face, where α is about $135^\circ - \theta_B$, ω is about $\theta_B - 45^\circ$ and where θ_B is the external Brewster angle for the material of the prism at the wavelength of the radiation.
2. (Currently Amended) ~~The method~~ The optical component of claim 1, wherein the radiation wavelength is 193 nm, the prism material is calcium fluoride, and θ_B is about 56.34° .
3. (Currently Amended) ~~The method~~ The optical component of claim 1, wherein the radiation wavelength is 244 nm, the prism material is fused silica, and θ_B is about 56.50° .
4. (Currently Amended) ~~The method~~ The optical component of claim 1, wherein said prism is a truncated triangular prism.
5. (Original) A method of turning a beam of radiation through an angle of 90 degrees, comprising:
providing a prism of a material transparent at the wavelength of the radiation to be reflected, said prism having first, second, and third plane faces, said first and second faces being oriented perpendicular to each other and said third face being inclined at an angle α to said first face, where α is about $135^\circ - \theta_B$, and where θ_B is the external Brewster angle for the material of the prism at the wavelength of the radiation; and
directing said beam of radiation into said prism via said first face thereof at an incidence angle θ_B to said first face in an incidence plane perpendicular to said first face,

whereby said radiation beam in said prism is reflected from said third face thereof by total internal reflection and exits said prism via said second face thereof at an incidence angle θ_B to said second face and at an angle of 90 degrees to said radiation incident on said first face.

6. (Currently Amended) ~~The optical component~~ The method of claim 5, wherein the radiation wavelength is 193 nm, the prism material is calcium fluoride, and θ_B is about 56.34°.

7. (Currently Amended) ~~The optical component~~ The method of claim 5, wherein the radiation wavelength is 244 nm, the prism material is fused silica, and θ_B is about 56.50°.

8. (Original) The method of claim 5, wherein the radiation is polarized in the plane of the turning angle.

9. (Original) The method of claim 5, wherein said prism is a truncated triangular prism.

10. (Currently Amended) A method of turning a beam of radiation through an angle of 90 degrees, comprising:

providing a prism of a material transparent at the wavelength of the radiation to be reflected, said prism having first, second, and third plane faces, said first and second faces being oriented perpendicular to each other and said third face being inclined at an angle ω to said second face, where ω is ~~about θ_B , 45°~~ about $\theta_B - 45^\circ$, and where θ_B is the external Brewster angle for the material of the prism at the wavelength of the radiation; and

directing said beam of radiation into said prism via said second face thereof at an incidence angle θ_B to said second face in an incidence plane perpendicular to said second face, whereby said radiation beam in said prism is reflected from said third face thereof by total internal reflection and exits said prism via said first face thereof at an incidence

angle θ_B to said first face and at an angle of 90 degrees to said radiation incident on said second face.

11. (Original) A method of turning a beam of radiation of a predetermined wavelength through an angle of 90 degrees using a prism comprising:

providing a prism having a opposed first and second faces and a third face connecting the first and second faces; and

directing the beam of radiation into one of the first face or the third faces at Brewster's angle and causing the beam to be refracted and then reflected by total internal reflection at the second face and exiting the prism via the other of the first or third faces at Brewster's angle, with the angles of the prism faces with respect to each other being selected so that the angle at which the beam exits the prism is about 90 degrees offset from the angle at which the beam enters the prism.

12. (New) The method of claim 11, wherein the prism is formed from calcium fluoride.

13. (New) The method of claim 11, wherein the prism is formed from fused silica.

14. (New) The method of claim 11, wherein the radiation is polarized in the plane of the turning angle.

15. (New) The method of claim 11, wherein said prism is a truncated triangular prism.

16. (New) The method of claim 11, wherein the first and second faces are oriented perpendicular to each other.

17. (New) An optical component for reflecting radiation, comprising:

a prism having opposed first and second faces and a third face connecting the first and second faces and wherein said first and second faces are oriented perpendicular to

each other and said third face is inclined at an angle α to said first face and at an angle ω to said second face, and wherein the angles α and ω are selected so that when a beam of radiation enters the first face at Brewster's angle, the beam will be refracted and then reflected by total internal reflection at the second face and exit the prism via the third face at Brewster's angle with a path that is offset by about 90 degrees from the angle at which the beam enters the prism.

18. (New) The optical component of claim 17, wherein the prism is formed from calcium fluoride.

19. (New) The optical component of claim 17, wherein the prism is formed from fused silica.

20. (New) The optical component of claim 17, wherein the radiation is polarized in the plane of the turning angle.

21. (New) The optical component of claim 17, wherein said prism is a truncated triangular prism.

22. (New) The optical component of claim 17, wherein the first and second faces are oriented perpendicular to each other.